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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,453	08/09/2001	Minoru Suzuki	P21297	2321

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EXAMINER

POE, MICHAEL I

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/924,453

Applicant(s)

SUZUKI, MINORU

Examiner

Michael I Poe

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/167,572.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/167,572, filed on October 7, 1998.

### ***Specification***

2. In the last paragraph of page 14 of the applicant's original disclosure, the applicant has incorporated Japanese Patent Application No. HEI 09-293484 by reference. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said shape memory resin" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. Note that it appears that claim 6 should be dependent on claim 2 rather than claim 1.

Art Unit: 1732

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,276,336 (Sabee).

**Claim 1**

Sabee teaches a method of making a multi-apertured web (film with through-holes) with incremental orientation in one or more directions (in a least one direction) including feeding a web 10 through one pair of stretch rolls 20 (a pair of stretching rollers which sandwich a film therebetween and stretch said film; stretching said film by means of said stretching rollers) and then aperture or depression forming rolls 32, 34 (a pair of punching rollers at least one of which has projections formed on an outer surface thereof, which sandwich said film therebetween and punch through-holes in said film; punching through-holes in said film) (column 1, lines 28-32; column 3, lines 7-13; Figure 3). As illustrated in Figure 3, Sabee further teaches that the web is fed directly from the stretch rolls 20 to the aperture or depression forming rolls 32, 34 (said stretching rollers and said punching rollers are disposed so that said film stretched by said stretching rollers are fed to said punching rollers).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1732

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,276,336 (Sabee) in view of Japanese Patent Publication No. 61-252353 A (Kanai).

**Claim 2**

The discussion of Sabee as applied to claim 1 above applies herein.

Sabee does not specifically teach that the web may comprise shape memory resin. However, Kanai teaches a non-woven sheet including resin fibers having shape memory properties (Derwent abstract of Kanai). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to use resin fibers having shape memory properties to form a garment (see column 1, lines 63-66 of Sabee) by the process of Sabee as taught by Kanai to provide a garment that is well fittable to the human body and that can recover its form if heated after washing (e.g., wrinkles would disappear) (see specifically Derwent abstract of Kanai).

9. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,276,336 (Sabee) in view of Japanese Patent Publication No. 61-252353 A (Kanai) when taken in view of U.S. Patent No. 5,154,935 (Hayashi).

**Claims 3-6**

The discussion of Sabee and Kanai as applied to claims 1 and 2 above applies herein.

Although Sabee in view of Kanai does teach heating the film to a cold stretching temperature during stretching (see claims) and heating the aperture or depression forming rollers (see column 2, lines 62-68); Sabee in view of Kanai does not specifically teach that the film is heated to a temperature above a shape providing temperature of the shape memory resin during stretching, that the film is heated above a glass transition temperature of the shape memory resin during punching, that the film is cooled below a shape providing temperature of the shape memory resin after stretching, and that the shape providing temperature is higher than the glass transition temperature. However, in this regard, Hayashi teaches that shape memory polymer molded articles are something that is formed by imparting deformation (e.g., stretching or punching) at a temperature (a shape providing temperature of said shape memory resin) not higher than the molding temperature and above the glass transition temperature (said glass transition temperature of said shape memory resin is below said shape providing temperature) and cooling after

Art Unit: 1732

deformation below the glass transition temperature for fixing the deformation (column 1, lines 21-32). As such, according to the teachings of Hayashi, the web in the process of Sabee in view of Kanai must obviously be heated above the glass transition temperature before any deformation step and must obviously be cooled below the glass transition temperature after any deformation step to achieve the shape memory properties taught by Kanai in the process of Sabee in view of Kanai. Further, according to the teachings of Hayashi, in order for the deformation achieved by the stretching step to be maintained during the punching step, the punching step must be performed at a temperature above the glass transition temperature but below the temperature of the stretching step to achieve the shape memory properties (e.g., a temperature above a glass transition temperature but below said shape providing temperature of said shape memory resin). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made and one of ordinary skill would have been motivated to use the claimed temperature relationships in the process of Sabee in view of Kanai, when taken in view of the teachings of Hayashi, to assure that the benefits of using the shape memory material taught by Kanai were achieved in the process of Sabee in view of Kanai.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,128,197 (Kobayashi et al.), U.S. Patent No. 5,573,719 (Fitting) and Japanese Patent Publication No. 02-307975 A (Motohisa) have been cited of interest to show the state of the art at the time the invention was made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael I Poe whose telephone number is (703) 306-9170. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (703) 305-5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 1732

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.



Michael Poe/mip



**MICHAEL COLAIANNI**  
**PRIMARY EXAMINER**